



NOAA FISHERIES

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<http://www.galvestonlab.sefsc.noaa.gov/>

Director: Dr. James M. Nance

Administrative Services:
Mr. James Randolph

Employees: 65 (28 federal,
21 contract, 16 volunteers)

Annual Budget: \$10.4 million in 2015
(\$8.1 million NOAA funds)

Galveston Lab Fact Sheet 2016



Founded: In 1929, a U.S. Fish & Wildlife Service Fisheries (FWS) field station was established in Galveston on Offatts Bayou, directed by A.E. Hopkins, Ph.D.

Original Mission: Oyster Research

Early Research: In 1931, under the direction of F.W. Weymouth in New Orleans, the Laboratory became one of four FWS field stations to conduct shrimp research in the Gulf of Mexico.

Present Facility: Established in 1950, at the old U.S. Army Ft. Crockett in Galveston, as a Bureau of Commercial Fisheries Laboratory. Historical designation. Renovated 2008. Over 80,000 square feet of offices and laboratories in 12 buildings with a 150,000-gallon seawater system. Research space is shared with National Ocean Service's (NOS) Flower Garden Banks National Marine Sanctuary (FGBNMS), Physical Oceanographic Real Time System (PORTS) and the Texas Marine Mammal Stranding Network (TMMSN).

Present Mission: Research on management of shrimp, sea turtles and coastal wetlands.

Research Branches: Fishery Management Branch - Dr. Rick A. Hart
Fishery Ecology Branch - Dr. Thomas J. Minello
Protected Species Branch - Vacant
Estuarine Habitats & Coastal Fisheries Center (Lafayette, LA) - Dr. John Foret
SERO Habitat Conservation Div., Gulf of Mexico Branch - Mr. Rusty Swafford

Programs: Offshore Fishery Observers, Shrimp Stock Assessment, Oil Platform Removal Observers, Bycatch Characterization, Shrimp Biology, Shrimp Catch Statistics, Monitoring of Sea Turtle and Marine Mammal Strandings, Sea Turtle TED and Longline Research, Essential Fish Habitat Research, Coral Reef Program, Coastal Wetland Restoration, Ecosystem Modeling.



Fort Crockett Before Fisheries

Originally built as a U.S. Army Garrison during the Spanish American War in 1897, the Fort Crockett Military Reservation was named in 1903 in honor of David Crockett, American pioneer and hero of the Alamo. The first permanent buildings of Ft. Crockett were constructed circa 1910....The laboratory incorporates seven of the oldest Ft. Crockett buildings...recently restored.

- Dr. Roger J. Zimmerman,
A History of the NMFS Galveston Laboratory

Fort Crockett History:

- 1897 The U.S. government purchased 125 acres of land between 45th and 49th Streets on the beachfront of Galveston Island for \$35,000.
- 1900 Hurricane destroyed most of the fortifications, and 29 of the 129 soldiers housed at the fort lost their lives. The fort without a garrison was turned over to the U.S. Army Corps of Engineers for repairs.
- 1903 Fort Crockett Military Reservation formally named in honor of Davy Crockett, a famous American pioneer who lost his life in the gallant defense of the Alamo.
- 1911 Construction of concrete buildings, Bldg. 216 (Post Exchange), Bldgs. 302 and 306 (Barracks), Bldgs. 301 and 305 (Lavatories), Bldgs. 303 and 307 (Mess Halls) was completed. The Coast Artillery Corps garrisoned Fort Crockett.
- WWI During World War I, three thousand troops are estimated to have been at the fort at one time. Trench mortar units, railroad artillery and Howitzer organizations were sent across to France, and steady stream of replacement batteries left the fort. It was estimated that Fort Crockett sent 100 to 200 replacements per month.
- 1922 Fort Crockett was put in caretaker status under the control of the U.S. Army Corps of Engineers.
- 1926 Fort Crockett reopened and was manned by the Third Attack Group.
- WWII During World War II, work on the fortifications of the fort was resumed in 1942 when the menace of German submarines entering the Gulf of Mexico, sinking merchant ships, and threatening the coastal ports and industries became apparent. The work was done in complete secrecy and completed in 1943.
- 1943 Fort Crockett became a prisoner of war camp when the first group of 165 POWs arrived. The compound was from 53rd St. to 57th St. and from Ave Q to Seawall Blvd. A total of 650 POWs were detained at the camp.
- 1946 Fort Crockett was deactivated.
- 1948 Fort Crockett was established as the Galveston Recreation Center for the Fourth Army.
- 1950 Fishery Research at Fort Crockett began with the US Fish and Wildlife Service, Gulf Fishery Investigations, housed in a single building.
- 1951 Fort Crockett put on caretaker status and put under the control of the U.S. Army Corps of Engineers.
- 1953 Fort Crockett was declared surplus.
- 1956 Fort Crockett released to General Services Administration for Disposal.
- 1957 U.S. Fish and Wild Service, Bureau of Commercial Fisheries Service acquired 10 buildings at our current site.
- 1970 Buildings and property were transferred to the National Marine Fisheries Service within the Department of Commerce.
- 1998 Beginning of current renovation by Department of Commerce.
- 2006 Flower Garden Banks National Marine Sanctuary relocates their offices to Building 216, the former Post Exchange building.
- 2011 The Texas Marine Mammal Stranding Network dedicates its new facility located at Fort Crockett.



Focus on Shrimp

From its earliest days, activities at the Galveston Laboratory have revolved around the shrimp fishing industry. As a consequence, the laboratory has become the repository of knowledge of shrimp biology and ecology and shrimp fisheries in the Gulf of Mexico. Although various programs have come and gone, its foundations has remained: to study shrimp species life histories, to assess shrimp stocks, to report shrimp fishery landings, to evaluate shrimp fishery bycatch, and to determine shrimp habitats and the role of shrimp in ecosystems.

- Dr. Roger J. Zimmerman,
*A History of the NMFS Galveston
Laboratory*

History of Accomplishments:

1950's

- Instituted a long-term record of U.S. shrimp fishery catch statistics (continuous since 1956).
- Developed a geographic Subarea System for Analyses of Fishery Data in the Gulf of Mexico.
- Conducted early research on red tides.

1960's

- Studied life cycles of brown shrimp and white shrimp.
- Reared brown shrimp and white shrimp in captivity from eggs.
- Developed hatchery methods for shrimp aquaculture.
- Conducted early research on shrimp growout in pond culture.
- Determined immigration patterns of postlarval shrimp in the Gulf of Mexico.
- Developed shrimp tagging methods for migration and population studies.
- Studied salinity and temperature effects on postlarval white shrimp and brown shrimp.
- Developed the Baxter/Berry bait shrimp index to correlate brown shrimp catch

1970's

- Conducted oceanographic surveys of circulation and bathymetry in the Gulf of Mexico.
- Initiated the "Headstart" experiment for conservation of Kemp's ridley sea turtles.
- Developed methods for captive rearing of sea turtles.
- Undertook environmental surveys of the Gulf of Mexico shelf for the U.S. Dept of Energy.
- Determined offshore migration patterns for penaeid shrimps in the Gulf of Mexico.
- Contributed to development of the Shrimp Fishery Management Plan for the Gulf of Mexico.
- Conducted stock identification (genetic) studies of penaeid shrimp.
- Developed a long-term (streamer) tag for penaeid shrimp.
- Conducted Environmental Impact Studies of offshore petroleum storage in salt domes.

1980's

- Issued forecasts of annual yields of western Gulf brown shrimp and Florida pink shrimp.
- Quantified utilization of marsh, seagrass and mangrove habitats by shrimps, crabs and fishes.
- Quantified feeding and protective functions of estuarine wetlands for fishery species.
- Compared ecological value of created versus natural wetlands for estuarine species.
- Determined effects of freshwater inflow on use of Texas marshes by fishery species.
- Developed life-time tagging methods for hatchling and juvenile sea turtles.
- Released thousands of head-started Kemp's ridleys into the Gulf of Mexico.
- Evaluated Turtle Excluder Devices (TEDs) in shrimp trawls.
- Assessed changes in size distributions of shrimp by weight and value of annual landings.

1990's

- Characterized bycatch from shrimp trawls, gill nets, fish traps, and longlines.
- Evaluated Bycatch Reduction Devices (BRDs) in shrimp trawls.
- Developed an ecosystem-based shrimp fishery bycatch model.
- Tracked movements of sea turtles through satellite, radio and sonic telemetry.
- Studied natural designs of seagrass and marsh habitats beneficial to fisheries.
- Studied effects of marsh habitat loss and restoration on fisheries production.
- Established parameters for evaluation of essential fish habitat in the Gulf of Mexico.
- Confirmed nesting of 10 year-old Headstarted Kemp's ridleys on Padre Island.
- Participated in the regional Sea Turtle Stranding and Salvage Network.
- Correlated sea turtle strandings with shrimping intensity.

2000's

- Initiated research of Gulf and Caribbean coral reefs.
- Supported Community-based Habitat Restoration in Texas and Louisiana.
- Began development of ecosystem models for use in ecosystem-based fishery management.
- Quantified shrimp production derived from estuarine habitats
- Initiated cooperative work with Mexico on the Gulf of Mexico Large Marine Ecosystem
- Examined effects of habitat change and fishing pressure on populations of Queen Conch in the USVI
- Responded to the 2010 Deep Water Horizon oil in the Gulf of Mexico
- Initiated cellular electronic logbook program in the Gulf of Mexico shrimp fishery

Research Partners and Cooperators:

Coastal Bend National Estuary Program
Ecuador Instituto de la Pesca
Everglades National Park
Florida Department of Environmental Protection
Galveston Bay National Estuary Program
Galveston Bay Foundation
Galveston Independent School District
Gladys Porter Zoo
Gulf & South Atlantic Fisheries Development Foundation, Inc.
Gulf of Mexico Fishery Management Council
Houston Zoo
LGL Ecological Research Association
Mexico's Departamento de la Pesca
Mexico's Secretariat of Environment and Natural Resources (Secretaría de Medio Ambiente y Recursos Naturales, SEMARNAT)
Moody Gardens Aquarium
New England Aquarium
Northern Gulf Institute
Louisiana Department of Wildlife and Fisheries
Louisiana State University
Port of Houston Authority
Savannah State University
Scenic Galveston
Texas A&M University
Texas Marine Mammal Stranding Network
Texas Parks and Wildlife Department
Texas Sea Grant
Texas Sea Turtle Stranding and Salvage Network
Texas Shrimpers Association
University of Houston
University of Louisiana at Lafayette
University of Puerto Rico
University of Texas
US Army Corps of Engineers at Galveston and New Orleans
US Coast Guard at Galveston
US Department of Interior/Bureau of Offshore Energy Management
US Environmental Protection Agency/Region IV and Gulf of Mexico Program
US Fish and Wildlife Service/Environmental Services at Clear Lake
US National Park Service at Padre Island National Seashore

